

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "is provided in an opening in the stator" and "the cut-out provides an opening in the casing tube." As written, it is unclear if these are the same openings or two separate openings.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 22-27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirschfeld USP 6892602.

Hirschfeld discloses a similar device comprising:

Re clm 22

- A steering spindle (3, fig 1) which is mounted in a casing tube (2, fig1) so as to be rotationally movable

- A switch module (10, fig 1) which is held immovably with respect to the rotational movement of the steering spindle and is fixed radially and axially on the casing tube
- The switch module is supported on a bearing (9, fig 1) arranged on the steering spindle
- The switch module comprises a centering device (fig 3) [which, under a force which is oriented coaxially with respect to the longitudinal axis of the steering spindle, fixes the switch module on the casing tube and clamps it radially.
- The centering device comprises a stator (11, fig 1) and clamping jaws (15, fig 1)
- A leaf spring (one of the 15, fig 1) which engages in a cut-out (recess, col 5 lines 38-50; lines 51-58) of the casing tube is provided in an opening (gap between 11 and 2) in the stator (11, fig 1)
- The leaf spring spans the opening (fig 1)
- The cut-out provides an opening in the casing tube through which the leaf spring protrudes radially toward the steering spindle (col 5, lines 38-50 and lines 51-58)

Re clm 23

- Each clamping jaw is in contact with the casing tube by way of a support (20, fig 1)

Re clm 24

- A first face (15, fig 1) of a first clamping jaw which faces the stator extends obliquely with regard to the longitudinal axis of the steering spindle

Re clm 25

- The inner face (inside of 11, fig 1) of the stator extends parallel to the oblique face of the clamping jaw

Re clm 26

- An elevation protrudes from a second face (outer portion of 15, fig 3) of a clamping jaw which faces the casing tube (the inside face of 13 faces casing tube, fig 3)

Re clm 27

- The axial force can be applied by means of a steering wheel bolt (4, fig 1)

Re clm 31

- A center region of the leaf spring has a concave configuration (fig 3)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 11, 13-17, 21 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirschfeld USP 6892602 in view of Papandreou USP 6318756.

Hirschfeld discloses a similar device comprising:

Re clm 11

- A steering spindle (3, fig 1) which is mounted in a casing tube so as to be rotationally movable
- A switch module (10, fig 1) which is held immovably with respect to the rotational movement of the steering spindle and is fixed radially and axially on the casing tube
- The switch module is supported on a bearing arranged on the steering spindle (fig 1)
- The switch module comprises a centering device (fig 3) [which, under a force which is oriented coaxially with respect to the longitudinal axis of the steering spindle, fixes the switch module on the casing tube and clamps the switch module radially (fig 1)]
- The centering device comprises a stator (11, fig 1)

Hirschfeld does not disclose:

- Clamping jaws
- An elevation protrudes toward the casing tube in a substantially radial direction from a first face of a first clamping jaw that faces the casing tube
- The elevation contacting an outermost surface of the casing tube

Papandreou teaches a similar steering column attachment device comprising:

- Clamping jaws (160, fig 2)
- An elevation (164, fig 2) protrudes toward the casing tube in a substantially radial direction from a first face of a first clamping jaw that faces the casing tube (130, fig 2)

- The elevation contacting an outermost surface of the casing tube (fig 2)

for the purpose of preventing axial movement between the steering spindle and another element and to allow blind attachment (c 1, ln 16-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Hirschfeld and provide:

- Clamping jaws
- An elevation protrudes toward the casing tube in a substantially radial direction from a first face of a first clamping jaw that faces the casing tube
- The elevation contacting an outermost surface of the casing tube

for the purpose of preventing axial movement between the steering spindle and another element and to allow blind attachment.

Re clm 13, Hirschfeld further discloses:

- The stator is connected to the bearing (fig 1)

Re clm 14 and 15, Hirschfeld in view of Papandreou further discloses:

- The stator is connected to each clamping jaw via a spring element (torsion spring at the bottom of 160, fig 4; Papandreou)

Re clm 16, Papandreou's steering column attachment device further comprises:

- Each clamping jaw is in contact with the casing tube by way of a support (rim of 130 to which 162 connects, fig 3)

Re clm 17, Hirschfeld in view of Papandreou further discloses:

- A second face (98, fig 3) of the first clamping jaw faces the stator and extends obliquely with regard to the longitudinal axis of the steering spindle

Re clm 18, Hirschfeld further discloses:

- The inner face of the stator extends parallel to the oblique face of the clamping jaw (fig 1)

Re clm 21, Hirschfeld further discloses:

- The axial force is applied by means of a steering wheel bolt (4, fig 1)

Re clm 30, Papandreou's steering column attachment device further comprises:

- The first face of the clamping jaw is spaced apart from the outermost surface of the casing tube based upon an amount of protrusion of the elevation from the first face of the first clamping jaw (fig 3)

Response to Arguments

7. Applicant's arguments filed 10/13/2009 have been fully considered but they are not persuasive.

Re clm 22-27

Applicant argues Hirschfeld does not disclose "a leaf spring which engages in a cut-out of the casing tube is provided in an opening in the stator, and the leaf spring spans the opening." See the rejection above. The Hirschfeld reference does indeed disclose a leaf spring (15, fig 1 and 3) that is provided in an opening (radial gap between 2 and 11) in the stator wherein the leaf spring spans the opening (fig 1).

8. Applicant's arguments with respect to claims 11, 13-17 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claims 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN B. WAITS whose telephone number is (571)270-

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3664. The examiner can normally be reached on Monday through Friday 7:30 am to 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan B Waits/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656